

# Complexities of the Neurological Patient Cohort - A Collaborative Approach to Pressure Ulcer Prevention

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The Walton Centre  
NHS Foundation Trust

## INTRODUCTION

The initiative outlined here has resulted in over 1000 pressure ulcer free days in a hyperacute neurotrauma rehabilitation unit at The Walton Centre NHS Trust. Forming part of the Chesire and Merseyside Rehabilitation Network the Walton Centre is the leading NHS Trust in the in UK dedicated to providing neurology, neurosurgery, spinal and pain management services.



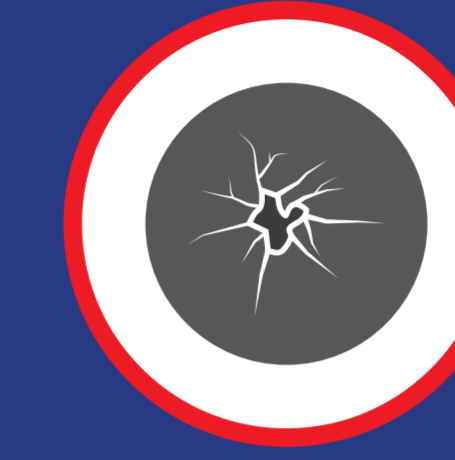
Neurological conditions affect over 3 billion people worldwide<sup>1</sup> and are the leading cause of ill health and disability<sup>2</sup>.



The rehabilitation process following a neurological injury or illness is indeed complex and necessitates a tailored approach for each patient. Often presenting with multiple risk factors and where sensory perception and response is altered, pressure ulcer prevention is a key focus within this process.



The involvement of a multidisciplinary team is vital, as it allows for comprehensive care that addresses the multifaceted needs of the patient. This may include continuous monitoring of vital signs, management of medications, and assistance with daily activities. The use of medical devices is often essential in these cases, as they provide critical support for the patient's physiological needs.



Over a 12-month period, six high category pressure ulcers developed on the hyperacute neurotrauma rehabilitation unit. Due to this, an initiative was launched by the tissue viability team to enhance pressure ulcer prevention and management and improve overall skin health, with the aim of exceeding 150 pressure ulcer-free days.

## METHOD

This initiative featured one-to-one bedside training for all patient facing staff, focusing on pressure ulcer awareness and the importance of maintaining skin integrity. Bespoke training was also provided when necessary. Staff would then cascade their learning to other members of staff.

The training aimed to equip healthcare staff with the necessary skills and knowledge to:

- Identify at-risk patients
- Perform skin checks to aid early detection of potential skin issues
- Implement prevention strategies
- Ensure effective care practices, to promote skin health and prevent the occurrence of pressure ulcers.

Staff also attended the Trust's Tissue Viability pressure ulcer prevention study days.

Numerous tests of change were established within the ward area to enhance staff knowledge and patient care. Examples of this included the trailing of new products such as soap substitutes, skin barrier products, the introduction of emollient therapy products, and the implementation of new pressure reducing/redistribution equipment to assist with the reduction of friction and shearing skin injuries.

In addition, all pressure ulcer prevention/management and skin integrity products were placed in one area, making it easier for staff to access and raising awareness of the products available.

The mattress selection process (Figure 1) was also reviewed following the implementation of new mattresses on the 9th of March 2023, education was provided to support this.

## RESULTS & OUTCOMES

Since the introduction of this initiative, the unit has well surpassed their original goal of 150 pressure ulcer free days by almost 7 times, running currently over 1000 days. In addition to these impressive patient outcomes:



The mattress selection chart (Figure 1) is now embedded in the Trust's electronic documentation system. If a patient is identified as being at high risk on their pressure ulcer risk assessment tool, the mattress selection chart automatically appears for staff to access.



A further addition to the existing moisture lesion guidelines has been the development and implementation of an Incontinence Associated Dermatitis pathway.



There has also been a marked improvement in communication and collaboration within the multi-disciplinary team. Staff have displayed open communication and ask for support when needed, escalating any concerns to the appropriate professional.



Bespoke training for physiotherapists and occupational therapists has been developed and 100 percent of staff have completed the tissue viability pressure ulcer prevention study day.

*"The multi-disciplinary team work closely together to make sure that risk factors are not only reduced but good pressure care becomes a multi-disciplined responsibility. As a result of this we are now able to record 3 full years of care for patients who have remained pressure*

*ulcer free. This is a fantastic achievement for the multiple teams involved including nursing, medical team and therapy teams that work with the patients on a daily basis."*



Jo, Clinical Specialist Physiotherapist

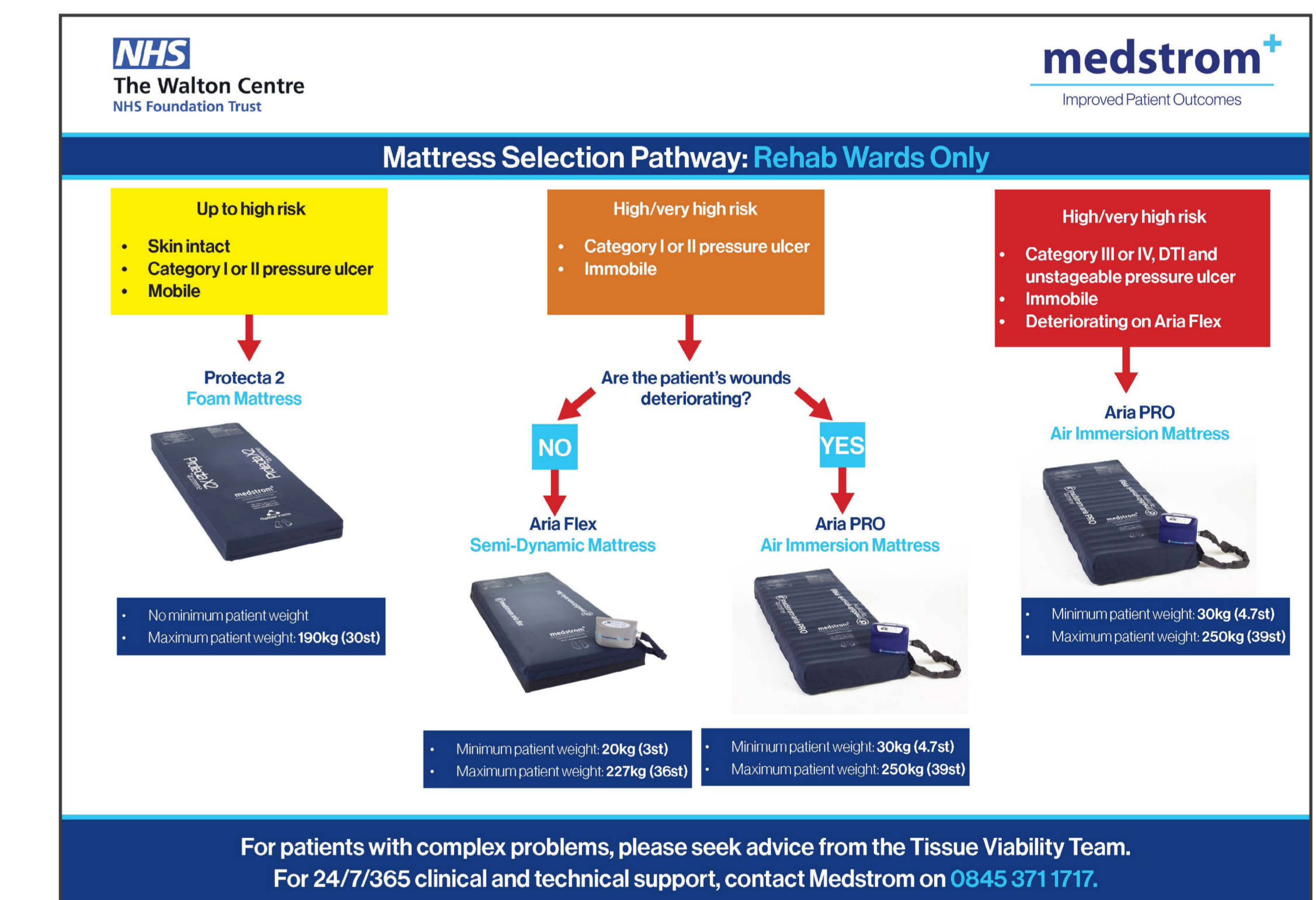


Figure 1. Mattress Selection Equipment Pathway

## DISCUSSION & CONCLUSION

- The pressure ulcer free target served as a motivator for staff, encouraging teamwork and shared responsibility towards patient care and the desire to succeed.
- Effective participation in the Trusts tissue viability study day was a crucial step to ensure staff had the knowledge and skills to implement these changes.
- The ward's approach exemplifies best practices in healthcare and demonstrates how quality care can benefit from such a supportive team culture whilst improving patient outcomes.
- This pressure ulcer prevention initiative has resulted in the unit significantly surpassing their initial 150 pressure ulcer free day target. Such achievements highlight the significance of consistent monitoring and intervention by the multidisciplinary team in preventing adverse health conditions.
- With the support of the quality improvement team, the plan is to duplicate the collaborative work undertaken on the unit throughout the Trust, with a 12-month target to reduce hospital acquired pressure ulcers by 25% and a zero tolerance of category 3 and 4.

<sup>1</sup>Steinmetz J, Ong L, Vos T. Global, regional, and national burden of disorders affecting the nervous system, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. Lancet Neuro. 2024 May; 23 (5): 344–81.

<sup>2</sup><https://www.who.int/news/item/14-03-2024-over-1-in-3-people-affected-by-neurological-conditions--the-leading-cause-of-illness-and-disability-worldwide> accessed 20th September 2024.